

AMENDMENTS TO THE DRAWINGS

Attached hereto is a replacement figure sheet for Figures 4A and 4B, which include the changes, without markings, identified below.

Figures 4A and 4B have been amended to fix the inadvertent swap of PMOS and NMOS in the legend of the figures.

REMARKS

By this Amendment, claims 2 and 14 have been amended and claims 16-22 have been added. Accordingly, claims 1-22 are currently pending in the application, of which claims 1, 12, and 14 are independent claims.

In view of the following Remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending objections and rejections for the reasons discussed below.

Rejections Under 35 U.S.C. §102

Claims 1-6, 8-10, and 12-15 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent App. No. 2003/0213957 issued to Yamaguchi, *et al.* (“*Yamaguchi*”). Applicants respectfully traverse this rejection for at least the following reasons.

Yamaguchi does not teach all the elements of claims 1-6, 8-10, and 12-15. In particular, the claims call for “an angle between grain boundaries of the N-type thin film transistor and an active channel region of the N-type thin film transistor is about -30° to about 30° and an angle between grain boundaries of the P-type thin film transistor and an active channel of the P-type thin film transistor is about 60° to about 120°.” Claim 14 (similar language is found in claims 1 and 12). *Yamaguchi* does not teach this combination. Figure 5 of the cited reference looks like Figure 2A of the present application, and Figure 6 of the cited reference looks like Figure 2B of the present application. As explained with reference to those figures, the active channel direction is the vertical direction. Application, p. 6, ll. 20-22 (explaining that Fig. 2A corresponds to a situation in which the primary grain boundaries are parallel to the active channel direction). Thus, inspection of the Figures 5 (corresponding to a p-type transistor, *Yamaguchi*, p. 6, first

column, ll. 18-24 (paragraph 0049)) and 6 (corresponding to a n-type transistor, *Yamaguchi*, p. 6, first column, ll. 18-24 (paragraph 0049) shows that in those figures, the primary grain boundaries are approximately the reverse of what is claimed.

In contrast to the present invention, Figure 5 shows the P-type transistor's primary grain boundaries are at angle of about 0° to the direction of the active channel. (cf. Figure 3 of the present application). This angle falls outside the claimed range. Moreover, Figure 6 shows the N-type transistor's primary grain boundaries are at angle of about 90° to the direction of the active channel. (cf. Figure 3 of the present application). This angle falls outside the claimed range.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(e) rejection of claims 1-6, 8-10, and 12-15. Since none of the other prior art of record discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claims 1, 12, and 14, and all the claims that depend from them are allowable.

Rejections Under 35 U.S.C. §103

Claims 7 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamaguchi* respectively in view of U.S. Patent No. 6,746,901 issued to Kasahara, *et al.* ("*Kasahara*") and in view of U.S. Patent No. 6,063,654 issued to Ohtani, *et al.* ("*Ohtani*"). Applicants respectfully traverse this rejection for at least the following reasons.

In order to render a claim obvious, the combination of cited references must teach each and every element of the claimed invention and must provide teaching, motivation or suggestion to combine. Nat'l Steel Car, Ltd. v. Canadian Pac. Rwy., 357 F.3d 1319, 1337 (Fed. Cir. 2004)

(citing Ecolchem, Inc. v. S. Cal. Edison Co., 227 F.3d 1361, 1371 (Fed. Cir. 2000)). This motivation must be based on the knowledge in the art, not knowledge provided by the application under examination, because such hindsight reconstruction is forbidden. In re Fine, 837 F.2d 1071, 1075 (Fed. Cir. 1988).

The combination of cited references does not teach all of the elements of the claims. Claims 7 and 11 depend from claim 1, and thus include all of its limitations. As explained above, *Yamaguchi* does not teach all of the elements of claim 1. *Kasahara* and *Ohtani*, as secondary references, do not remedy the above-described deficiencies of *Yamaguchi*. Indeed, the examiner cites these references for other aspects.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claims 7-11. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claims 1, 12, and 14, and all the claims that depend from them are allowable.


CONCLUSION

Applicants believe that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicants respectfully submit that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicants' undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,



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